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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,371	04/20/2004	Michael Charles Cooke	1565.2.16.1	4883

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EXAMINER	
NGUYEN, BINH AN DUC	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/828,371	COOKE, MICHAEL CHARLES	
	Examiner	Art Unit	
	Binh-An D. Nguyen	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6 and 8-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6 and 8-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The Amendment filed April 3, 2008 has been received. According to the Amendment, the abstract and claims 1, 2, 4, 6, 8-15, 18, and 19 have been amended; claims 5 and 7 have been canceled; and claims 21 and 22 have been added. Currently, claims 1-4, 6, and 8-22 are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 8, 9, 13, 14, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Thorner et al. (5,565,840).

Referring to claims 1 and 22, Thorner et al. teaches a feedback assembly for computer games comprising at least one wearable electrode unit (e.g., piezo-electric actuators (2:)(Fig.2) for delivering stimulation signals in the form of electrical pulses to stimulate muscles of part of a player's body (3:30-38); the at least one wearable electrode unit being adapted to attach to a part of the player's body (Figures 1 and 2), wherein the at least one wearable electrode unit (106) is adapted to deliver to the player stimulation signals in the form of electrical pulses in response to activation signals received from a computer gaming device at predetermined times to represent events occurring in an activity involving the player (2:9-29). See also, Figures 1-3 and columns

1-4. Note that, the amended limitation of delivering stimulation signals in the form of electrical pulses is inherent from Thorner et al.'s teaching of utilizing piezo-electric actuators since voltage must be provided to the piezo-electric actuators.

Referring to claim 2, Thorner et al. teaches the at least one electrode unit is adapted to deliver stimulation signals at predetermined times corresponding to the times at which feedback signals are received by a data processor with the feedback signals representing events occurring in the activity (2:9-29).

Referring to claim 3, Thorner et al. teaches the predetermined times correspond to the times during the activity during which the player receives a simulated impact (relaying particular predetermined action signals e.g. punches, bullet strikes, etc., during game progress) (2:9-29).

Referring to claim 4, Thorner et al. teaches an input device for receiving the activation signals from a data processor used for controlling an activity involving the player (3:2-38).

Referring to claim 6, Thorner et al. teaches a casing (vest 210) with one or more electrodes (actuators 208) on an inner surface thereof in the form of electrical pulses to stimulate muscles of part of a player's body.

Referring to claim 8, Thorner et al. teaches the casing is adapted to wrap around the player's limb (upper body)(Fig.2).

Referring to claim 9, Thorner et al. teaches the at least one wearable electrode unit comprises a strap and hook and loop system for attaching to the player's body (Figures 2-3).

Referring to claim 13, Thorner et al. teaches an interface unit (interface circuit 104) which includes a signal generator (2:25-29).

Referring to claim 14, Thorner et al. further teaches the interface unit (104) comprises a housing (computer) with at least one feedback assembly input port (parallel port) for receipt of the activation signals (from game console or computer)(3:3-8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thorner et al. (5,565,840).

Thorner et al. teaches all limitations of claims 1-9 and 13 above.

Referring to claim 10, Thorner et al. further teaches interface unit includes a plurality of wearable electrode units which is able to deliver stimulation signals independently of each other electrode (3:39-64). Thorner et al. does not explicitly teach a plurality of wearable accessories. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide additional feedback sensors to other parts of the body to enhance the reality of the game.

Referring to claims 11 and 12, Thorner et al. teaches the at least one wearable electrode unit (interface circuit 104) is wired to the gaming device (3:31-38); an interface unit (interface circuit 104) which includes a signal generator (2:25-29).

Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thorner et al. (5,565,840) in view of Huang et al. (6,135,450).

Thorner et al. teaches all limitations of claims 1-9 and 13 above.

Referring to claims 15-18, Thorner et al. does not explicitly teach the interface unit includes accessory input and output ports and a data processor output port for connecting the interface to a data processor (claim 15); the accessory input and output ports are adapted to connect the interface unit to at least one controller for controlling operation of the data processor (claim 16); the interface unit is adapted to be connected to a computer console of a computer game (claim 17); the interface unit includes a data processor for producing a computer generated activity on a display device (claim 18). Huang et al., however, teaches a wearable vibration device for video games comprising an interface unit (16) (Figs.1, 2, 6) includes accessory input and output ports (Fig.2) and a data processor output port for connecting the interface means to a data processor (2:53-65); the accessory input and output ports are adapted to connect the interface unit to at least one controller (34)(Fig.2) for controlling operation of the data processor (38); the interface unit is adapted to be connected to a computer console of a computer game (Figs.2, 6, 7); and the interface means includes a data processor (38) for producing a computer generated activity (on a display device). Note that, the display device is

inherent from the video game system. It would heve been obvious to a person of ordinary skill in the art at the time the invention was made to provide the separate game interface unit of Huang et al. to the tactile sensation generator of Thorner et al. to provide faster processing speed of the input/output feedback interface of the video game system thus enhance the reality of the game.

Regarding the limitations of signal generator is adapted to be controlled by an adjustment means to vary a parameter of the stimulation signals so as to vary the stimulation signals delivered by the at least one wearable electrode unit to simulate different events occurring during the activity played by the player (claim 19); and the stimulation signals vary in amplitude in direct proportion to the amplitude of the feedback signals (claim 20), it is obvious to control the adjustment parameters of the stimulation signals for comforts.

Claims 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorner et al. (5,565,840) in view of Allen et al. (4,553,748).

Thorner et al. teaches all limitations of claim 1 above.

Referring to claim 21, Thorner et al. does not explicitly teach the electrode unit transmits a signal in the form of an electrical pulse to the adjacent skin of the player thereby to stimulate muscle tissue and evoke an involuntary response. Allen et al., however, teaches an electrostatically enhanced game wherein an electrode unit transmits a signal in the form of an electrical pulse to the adjacent skin of the player (see abstract, Figs. 1-3). It would have been obvious to a person of ordinary skill in the

art at the time the invention was made to utilize electrical pulse directly to the player's skin, as taught by Allen et al., in the videogame system of Thorner et al. to provide a safe but exciting game affect as suggested by Allen et al. (3:3-26; 8:26-43).

Response to Arguments

Applicant's arguments filed April 3, 2008 have been fully considered but they are not persuasive. Applicant argued that Thorner does not teach the amended limitations of "wearable electrode unit" and that "electrical pulses" are delivered to the player (applicant's remarks, page 7, last paragraph bridging page 8) is deemed not to be persuasive. Thorner et al. teaches a feedback assembly for computer games comprising at least one wearable electrode unit (e.g., piezo-electric actuators (2:)(Fig.2) for delivering stimulation signals in the form of electrical pulses to stimulate muscles of part of a player's body (3:30-38). Note that, the amended limitation of delivering stimulation signals in the form of electrical pulses is inherent from Thorner et al.'s teaching of utilizing piezo-electric actuators since voltage must be provided to the piezo-electric actuators.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh-An D. Nguyen whose telephone number is 571-272-4440. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert E Pezzuto/
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